Grade 8, Pre-Visit Activity, "The Active Earth"

Name: _____

What Comes From Rocks?

Many things we use every day are made from rocks. That's right, from rocks! Circle the things below that come from rocks, and put a check mark next to those that you have used in the past three days.

Pencils	Coin money	Table salt
Mirror	Drinking glass	Plastic spoon
Jewelry	Soda can	Scissors
Pottery	Chalk	Paint
Computer	Lipstick	Shoe polish
Sidewalks	Blue jeans	Wooden spoon
Paper	Metal baseball bat	Clock/watch
Grass	Book	Plastic bag
Styrofoam cup	Nylons	Toothpaste
Steel wool	Metal knife, fork, spoon	Airplane

Products of Geology

Now that you know what things come from rocks, categorize the products into the following:

Petroleum Products	Mineral Products	Rock Products

Can you think of other "Products of Geology"?

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VOCABULARY

Deposition: The laying down of materials that may later form a rock; sedimentation

Deformation: Folding and faulting of rocks due to forces within the earth

Erosion: The process by which rock and soil are removed from any part of the Earth's surface; the effect of weathering

Weathering: The mechanical disintegration and chemical decomposition of rocks

Frost Wedging: The mechanism by which jointed rocks are pried apart by ice acting as a wedge

Rock Types

Igneous Extrusive	Volcanic rocks that have solidified above the surface of the earth
--volcanic breccia	A rock composed of angular volcanic fragments
--welded tuff	The hot ash from a volcano welds together to form a very hard rock
Igneous Intrusive	A body of magma that crystallizes within the earth's crust
--granite	
Sedimentary	Rocks formed by the accumulation of layers of sand, silt, clay, and mud
--Mancos Shale	
--Dakota Sandstone	
--Morrison Formation	
Metamorphic	Rocks that form at depth within the crust through solid-state recrystallization of pre-existing rocks as a result of heat, pressure, and chemically active fluids
--Gneiss	
--Schist	

Outreach Education

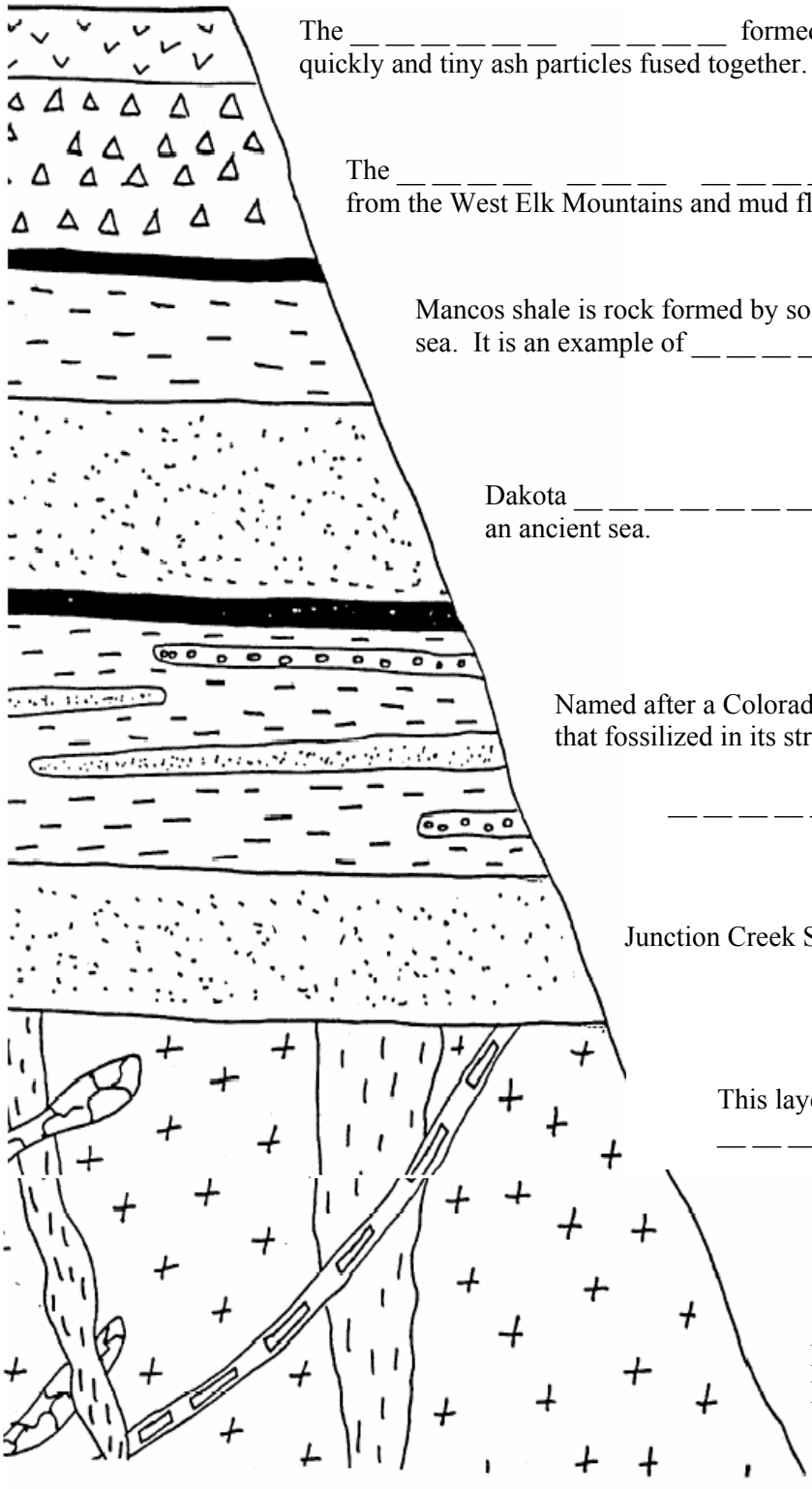
Black Canyon of the Gunnison National Park
Curecanti National Recreation Area

National Park Service

Grade 8, Post-Visit Activity, "The Active Earth"

Name: _____

Instructions: Curecanti's rock layers are represented in the drawing below. Read the clue next to each layer and fill in the blanks.



The __ __ __ __ __ __ __ __ __ __ __ formed when extremely hot volcanic ash cooled quickly and tiny ash particles fused together.

The __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ is a mixture of volcanic ash from the West Elk Mountains and mud flows.

Mancos shale is rock formed by soft mud that sank to the bottom of an ancient sea. It is an example of __ __ __ __ __ __ __ __ __ __ __ rock.

Dakota __ __ __ __ __ __ __ __ __ __ is the remnants of beach sand on the edge of an ancient sea.

Named after a Colorado town, this layer is famous for the dinosaur bones that fossilized in its stream sediments.

__ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __

Junction Creek Sandstone was deposited by __ __ __ __.

This layer was deposited before life. It is called __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __

Mark each layer with an **I** if it is igneous rock, an **M** for metamorphic, or an **S** for sedimentary.

Using what you've learned about the geology of this area, draw what you think the Dillon Pinnacles looked like, 40 million years ago, before the breccia was exposed to erosional forces.

Sketch what you think the Dillon Pinnacles will look like a million years from now.

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A Visit to the
Dillon Pinnacles

Using what you have learned about geology, describe the Dillon Pinnacles to a scientist.

Describe the Dillon Pinnacles to an artist, including colors, shapes, textures, etc.

Sketch the Dillon Pinnacles.